

GCCCCAGGGCCTGGAGAGGTCTGAAGAAACCTGGGAGCCAGCAGCCCCGGGGCTCCACTCTGGGTTCTGAAAGCCCATTC 79
 CCTGCTCTGCGGCTCCTCCCCACCCACCTCTTCTCAGCCTTGACAGCTCAAGGGTTGATCTCAGGAGTCCAGGACCCAGG 158
 AGAGGGAAGAATCTGAGGAACACAGAACAGTGAGCGTTGCCACACCCCATCTCCCGTCACCACATCTCCCTCACCCCT 237
 CACCCCTCCCTGCCTGGCCCTGGACCCCATCCCAGGACCTCCCTATCAGCTGACTTCTTCCAGTGTCTTGACAGGCCCTC 316
 TGGGCTCCTCCCTCCCTGGCTTTTCTACCACTCCCCCTCTATCGGCGTCTATCTGTAGGTGCCCTGGGATTTATAAA 395
 ACTGGGTTCCGAATGCTGAATAAGAGACGGTAAGAGCCAAGGCAAAGGACAGCACTGTTCTCTGCCTGCCTGATACCCT 474

 CACCACCTGGGAACATCCCCAGACACCCCTCTTAACCTCCGGGACAGAG M A G G A W G 7
 ATG GCT GGC GGA GCC TGG GGC 543

 R L A C Y L E F L K K E E L K E F Q L L 27
 CGC CTG GCC TGT TAC TTG GAG TTC CTG AAG AAG GAG GAG CTG AAG GAG TTC CAG CTT CTG 603

 L A N K A H S R S S S G E T P A Q P E K 47
 CTC GCC AAT AAA GCG CAC TCC AGG AGC TCT TCG GGT GAG ACA CCC GCT CAG CCA GAG AAG 663

 T S G M E V A S Y L V A Q Y G E Q R A W 67
 ACG AGT GGC ATG GAG GTG GCC TCG TAC CTG GTG GCT CAG TAT GGG GAG CAG CGG GCC TGG 723

 D L A L H T W E Q M G L R S L C A Q A Q 87
 GAC CTA GCC CTC CAT ACC TGG GAG CAG ATG GGG CTG AGG TCA CTG TGC GCC CAA GCC CAG 783

 E G A G H S P S F P Y S P S E P H L G S 107
 GAA GGG GCA GGC CAC TCT CCC TCA TTC CCC TAC AGC CCA AGT GAA CCC CAC CTG GGG TCT 843

 P S Q P T S T A V L M P W I H E L P A G 127
 CCC AGC CAA CCC ACC TCC ACC GCA GTG CTA ATG CCC TGG ATC CAT GAA TTG CCG GCG GGG 903

 C T Q G S E R R V L R Q L P D T S G R R 147
 TGC ACC CAG GGC TCA GAG AGA AGG GTT TTG AGA CAG CTG CCT GAC ACA TCT GGA CGC CGC 963

 W R E I S A S L L Y Q A L P S S P D H E 167
 TGG AGA GAA ATC TCT GCC TCA CTC CTC TAC CAA GCT CTT CCA AGC TCC CCA GAC CAT GAG 1023

 S P S Q E S P N A P T S T A V L G S W G 187
 TCT CCA AGC CAG GAG TCA CCC AAC GCC CCC ACA TCC ACA GCA GTG CTG GGG AGC TGG GGA 1083

 S P P Q P S L A P R E Q E A P G T Q W P 207
 TCC CCA CCT CAG CCC AGC CTA GCA CCC AGA GAG CAG GAG GCT CCT GGG ACC CAA TGG CCT 1143

 L D E T S G I Y Y T E I R E R E R E K S 227
 CTG GAT GAA ACG TCA GGA ATT TAC TAC ACA GAA ATC AGA GAA AGA GAG AGA GAG AAA TCA 1203

 E K G R P P W A A V V G T P P Q A H T S 247
 GAG AAA GGC AGG CCC CCA TGG GCA GCG GTG GTA GGA ACG CCC CCA CAG GCG CAC ACC AGC 1263

 L Q P H H H P W E P S V R E S L C S T W 267
 CTA CAG CCC CAC CAC CCA TGG GAG CCT TCT GTG AGA GAG AGC CTC TGT TCC ACA TGG 1323

 P W K N E D F N Q K F T Q L L L L Q R P 287
 CCC TGG AAA AAT GAG GAT TTT AAC CAA AAA TTC ACA CAG CTG CTA CTT CTA CAA AGA CCT 1383

 H P R S Q D P L V K R S W P D Y V E E N 307
 CAC CCC AGA AGC CAA GAT CCC CTG GTC AAG AGA AGC TGG CCT GAT TAT GTG GAG GAG AAT 1443

 R G H L I E I R D L F G P G L D T Q E P 327
 CGA GGA CAT TTA ATT GAG ATC AGA GAC TTA TTT GGC CCA GGC CTG GAT ACC CAA GAA CCT 1503

 R I V I L Q G A A G I G K S T L A R Q V 347
 CGC ATA GTC ATA CTG CAG GGG GCT GCT GGA ATT GGG AAG TCA ACA CTG GCC AGG CAG GTG 1563

FIG. 1A

K	E	A	W	G	R	G	Q	L	Y	G	D	R	F	Q	H	V	F	Y	F	367
AAG	GAA	GCC	TGG	GGG	AGA	GGC	CAG	CTG	TAT	GGG	GAC	CGC	TTC	CAG	CAT	GTC	TTC	TAC	TTC	1623
S	C	R	E	L	A	Q	S	K	V	V	S	L	A	E	L	I	G	K	D	387
AGC	TGC	AGA	GAG	CTG	GCC	CAG	TCC	AAG	GTG	GTG	AGT	CTC	GCT	GAG	CTC	ATC	GGA	AAA	GAT	1683
G	T	A	T	P	A	P	I	R	Q	I	L	S	R	P	E	R	L	L	F	407
GGG	ACA	GCC	ACT	CCG	GCT	CCC	ATT	AGA	CAG	ATC	CTG	TCT	AGG	CCA	GAG	CGG	CTG	CTC	TTC	1743
I	L	D	G	V	D	E	P	G	W	V	L	Q	E	P	S	S	E	L	C	427
ATC	CTC	GAT	GGT	GTG	GAT	GAG	CCA	GGA	TGG	GTC	TTG	CAG	GAG	CCG	AGT	TCT	GAG	CTC	TGT	1803
L	H	W	S	Q	P	Q	P	A	D	A	L	L	G	S	L	L	G	K	T	447
CTG	CAC	TGG	AGC	CAG	CCA	CAG	CCG	GCG	GAT	GCA	CTG	CTG	GGC	AGT	TTG	CTG	GGG	AAA	ACT	1863
I	L	P	E	A	S	F	L	I	T	A	R	T	T	A	L	Q	N	L	I	467
ATA	CTT	CCC	GAG	GCA	TCC	TTC	CTG	ATC	ACG	GCT	CGG	ACC	ACA	GCT	CTG	CAG	AAC	CTC	ATT	1923
P	S	L	E	Q	A	R	W	V	E	V	L	G	F	S	E	S	S	R	K	487
CCT	TCT	TTG	GAG	CAG	GCA	CGT	TGG	GTA	GAG	GTC	CTG	GGG	TTC	TCT	GAG	TCC	AGC	AGG	AAG	1983
E	Y	F	Y	R	Y	F	T	D	E	R	Q	A	I	R	A	F	R	L	V	507
GAA	TAT	TTC	TAC	AGA	TAT	TTC	ACA	GAT	GAA	AGG	CAA	GCA	ATT	AGA	GCC	TTT	AGG	TTG	GTC	2043
K	S	N	K	E	L	W	A	L	C	L	V	P	W	V	S	W	L	A	C	527
AAA	TCA	AAC	AAA	GAG	CTC	TGG	GCC	CTG	TGT	CTT	GTG	CCC	TGG	GTG	TCC	TGG	CTG	GCC	TGC	2103
T	C	L	M	Q	Q	M	K	R	K	E	K	L	T	L	T	S	K	T	T	547
ACT	TGC	CTG	ATG	CAG	CAG	ATG	AAG	CGG	AAG	GAA	AAA	CTC	ACA	CTG	ACT	TCC	AAG	ACC	ACC	2163
T	T	L	C	L	H	Y	L	A	Q	A	L	Q	A	Q	P	L	G	P	Q	567
ACA	ACC	CTC	TGT	CTA	CAT	TAC	CTT	GCC	CAG	GCT	CTC	CAA	GCT	CAG	CCA	TTG	GGA	CCC	CAG	2223
L	R	D	L	C	S	L	A	A	E	G	I	W	Q	K	K	T	L	F	S	587
CTC	AGA	GAC	CTC	TGC	TCT	CTG	GCT	GCT	GAG	GGC	ATC	TGG	CAA	AAA	AAG	ACC	CTT	TTC	AGT	2283
P	D	D	L	R	K	H	G	L	D	G	A	I	I	S	T	F	L	K	M	607
CCA	GAT	GAC	CTC	AGG	AAG	CAT	GGG	TTA	GAT	GGG	GCC	ATC	ATC	TCC	ACC	TTC	TTG	AAG	ATG	2343
G	I	L	Q	E	H	P	I	P	L	S	Y	S	F	I	H	L	C	F	Q	627
GGT	ATT	CTT	CAA	GAG	CAC	CCC	ATC	CCT	CTG	AGC	TAC	AGC	TTC	ATT	CAC	CTC	TGT	TTC	CAA	2403
E	F	F	A	A	M	S	Y	V	L	E	D	E	K	G	R	G	K	H	S	647
GAG	TTC	TTT	GCA	GCA	ATG	TCC	TAT	GTC	TTG	GAG	GAT	GAG	AAG	GGG	AGA	GGT	AAA	CAT	TCT	2463
N	C	I	I	D	L	E	K	T	L	E	A	Y	G	I	H	G	L	F	G	667
AAT	TGC	ATC	ATA	GAT	TTG	GAA	AAG	ACG	CTA	GAA	GCA	TAT	GGA	ATA	CAT	GGC	CTG	TTT	GGG	2523
A	S	T	T	R	F	L	L	G	L	L	S	D	E	G	E	R	E	M	E	687
GCA	TCA	ACC	ACA	CGT	TTC	CTA	TTG	GGC	CTG	TTA	AGT	GAT	GAG	GGG	GAG	AGA	GAG	ATG	GAG	2583
N	I	F	H	C	R	L	S	Q	G	R	N	L	M	Q	W	V	P	S	L	707
AAC	ATC	TTT	CAC	TGC	CGG	CTG	TCT	CAG	GGG	AGG	AAC	CTG	ATG	CAG	TGG	GTC	CCG	TCC	CTG	2643
Q	L	L	L	Q	P	H	S	L	E	S	L	H	C	L	Y	E	T	R	N	727
CAG	CTG	CTG	CTG	CAG	CCA	CAC	TCT	CTG	GAG	TCC	CTC	CAC	TGC	TTG	TAC	GAG	ACT	CGG	AAC	2703
K	T	F	L	T	Q	V	M	A	H	F	E	E	M	G	M	C	V	E	T	747
AAA	ACG	TTC	CTG	ACA	CAA	GTG	ATG	GCC	CAT	TTC	GAA	GAA	ATG	GGC	ATG	TGT	GTA	GAA	ACA	2763
D	M	E	L	L	V	C	T	F	C	I	K	F	S	R	H	V	K	K	L	767
GAC	ATG	GAG	CTC	TTA	GTG	TGC	ACT	TTC	TGC	ATT	AAA	TTC	AGC	CGC	CAC	GTG	AAG	AAG	CTT	2823
Q	L	I	E	G	R	Q	H	R	S	T	W	S	P	T	M	V	V	L	F	787
CAG	CTG	ATT	GAG	GGC	AGG	CAG	CAC	AGA	TCA	ACA	TGG	AGC	CCC	ACC	ATG	GTA	GTC	CTG	TTC	2883
R	W	V	P	V	T	D	A	Y	W	Q	I	L	F	S	V	L	K	V	T	807

FIG. 1B

AGG TGG GTC CCA GTC ACA GAT GCC TAT TGG CAG ATT CTC TTC TCC GTC CTC AAG GTC ACC 2943
 R N L K E L D L S G N S L S H S A V K S 827
 AGA AAC CTG AAG GAG CTG GAC CTA AGT GGA AAC TCG CTG AGC CAC TCT GCA GTG AAG AGT 3003
 L C K T L R R P R C L L E T L R L A G C 847
 CTT TGT AAG ACC CTG AGA CGC CCT CGC TGC CTC CTG GAG ACC CTG CGG TTG GCT GGC TGT 3063
 G L T A E D C K D L A F G L R A N Q T L 867
 GGC CTC ACA GCT GAG GAC TGC AAG GAC CTT GCC TTT GGG CTG AGA GCC AAC CAG ACC CTG 3123
 T E L D L S F N V L T D A G A K H L C Q 887
 ACC GAG CTG GAC CTG AGC TTC AAT GTG CTC ACG GAT GCT GGA GCC AAA CAC CTT TGC CAG 3183
 R L R Q P S C K L Q R L Q L V S C G L T 907
 AGA CTG AGA CAG CCG AGC TGC AAG CTA CAG CGA CTG CAG CTG GTC AGC TGT GGC CTC ACG 3243
 S D C C Q D L A S V L S A S P S L K E L 927
 TCT GAC TGC TGC CAG GAC CTG GCC TCT GTG CTT AGT GCC AGC CCC AGC CTG AAG GAG CTA 3303
 D L Q Q N N L D D V G V R L L C E G L R 947
 GAC CTG CAG CAG AAC AAC CTG GAT GAC GTT GGC GTG CGA CTG CTC TGT GAG GGG CTC AGG 3363
 H P A C K L I R L G L D Q T T L S D E M 967
 CAT CCT GCC TGC AAA CTC ATA CGC CTG GGG CTG GAC CAG ACA ACT CTG AGT GAT GAG ATG 3423
 R Q E L R A L E Q E K P Q L L I F S R R 987
 AGG CAG GAA CTG AGG GCC CTG GAG CAG GAG AAA CCT CAG CTG CTC ATC TTC AGC AGA CGG 3483
 K P S V M T P T E G L D T G E M S N S T 1007
 AAA CCA AGT GTG ATG ACC CCT ACT GAG GGC CTG GAT ACG GGA GAG ATG AGT AAT AGC ACA 3543
 S S L K R Q R L G S E R A A S H V A Q A 1027
 TCC TCA CTC AAG CGG CAG AGA CTC GGA TCA GAG AGG GCG GCT TCC CAT GTT GCT CAG GCT 3603
 N L K L L D V S K I F P I A E I A E E S 1047
 AAT CTC AAA CTC CTG GAC GTG AGC AAG ATC TTC CCA ATT GCT GAG ATT GCA GAG GAA AGC 3663
 S P E V V P V E L L C V P S P A S Q G D 1067
 TCC CCA GAG GTA GTA CCG GTG GAA CTC TTG TGC GTG CCT TCT CCT GCC TCT CAA GGG GAC 3723
 L H T K P L G T D D D F W G P T G P V A 1087
 CTG CAT ACG AAG CCT TTG GGG ACT GAC GAT GAC TTC TGG GGC CCC ACG GGG CCT GTG GCT 3783
 T E V V D K E K N L Y R V H F P V A G S 1107
 ACT GAG GTA GTT GAC AAA GAA AAG AAC TTG TAC CGA GTT CAC TTC CCT GTA GCT GGC TCC 3843
 Y R W P N T G L C F V M R E A V T V E I 1127
 TAC CGC TGG CCC AAC ACG GGT CTC TGC TTT GTG ATG AGA GAA GCG GTG ACC GTT GAG ATT 3903
 E F C V W D Q F L G E I N P Q H S W M V 1147
 GAA TTC TGT GTG TGG GAC CAG TTC CTG GGT GAG ATC AAC CCA CAG CAC AGC TGG ATG GTG 3963
 A G P L L D I K A E P G A V E A V H L P 1167
 GCA GGG CCT CTG CTG GAC ATC AAG GCT GAG CCT GGA GCT GTG GAA GCT GTG CAC CTC CCT 4023
 H F V A L Q G G H V D T S L F Q M A H F 1187
 CAC TTT GTG GCT CTC CAA GGG GGC CAT GTG GAC ACA TCC CTG TTC CAA ATG GCC CAC TTT 4083
 K E E G M L L E K P A R V E L H H I V L 1207
 AAA GAG GAG GGG ATG CTC CTG GAG AAG CCA GCC AGG GTG GAG CTG CAT CAC ATA GTT CTG 4143
 E N P S F S P L G V L L K M I H N A L R 1227
 GAA AAC CCC AGC TTC TCC CCC TTG GGA GTC CTC CTG AAA ATG ATC CAT AAT GCC CTG CGC 4203
 F I P V T S V V L L Y H R V H P E E V T 1247
 TTC ATT CCC GTC ACC TCT GTG GTG TTG CTT TAC CAC CGC GTC CAT CCT GAG GAA GTC ACC 4263

FIG. 1C

F	H	L	Y	L	I	P	S	D	C	S	I	R	K	E	L	E	L	C	Y		1267
TTC	CAC	CTC	TAC	CTG	ATC	CCA	AGT	GAC	TGC	TCC	ATT	CGG	AAG	GAA	CTG	GAG	CTC	TGC	TAT		4323
R	S	P	G	E	D	Q	L	F	S	E	F	Y	V	G	H	L	G	S	G		1287
CGA	AGC	CCT	GGA	GAA	GAC	CAG	CTG	TTC	TCG	GAG	TTC	TAC	GTT	GGC	CAC	TTG	GGA	TCA	GGG		4383
I	R	L	Q	V	K	D	K	K	D	E	T	L	V	W	E	A	L	V	K		1307
ATC	AGG	CTG	CAA	GTG	AAA	GAC	AAG	AAA	GAT	GAG	ACT	CTG	GTG	TGG	GAG	GCC	TTG	GTG	AAA		4443
P	G	D	L	M	P	A	T	T	L	I	P	P	A	R	I	A	V	P	S		1327
CCA	GGA	GAT	CTC	ATG	CCT	GCA	ACT	ACT	CTG	ATC	CCT	CCA	GCC	CGC	ATA	GCC	GTA	CCT	TCA		4503
P	L	D	A	P	Q	L	L	H	F	V	D	Q	Y	R	E	Q	L	I	A		1347
CCT	CTG	GAT	GCC	CCG	CAG	TTG	CTG	CAC	TTT	GTG	GAC	CAG	TAT	CGA	GAG	CAG	CTG	ATA	GCC		4563
R	V	T	S	V	E	V	V	L	D	K	L	H	G	Q	V	L	S	Q	E		1367
CGA	GTG	ACA	TCG	GTG	GAG	GTT	GTC	TTG	GAC	AAA	CTG	CAT	GGA	CAG	GTG	CTG	AGC	CAG	GAG		4623
Q	Y	E	R	V	L	A	E	N	T	R	P	S	Q	M	R	K	L	F	S		1387
CAG	TAC	GAG	AGG	GTG	CTG	GCT	GAG	AAC	ACG	AGG	CCC	AGC	CAG	ATG	CGG	AAG	CTG	TTC	AGC		4683
L	S	Q	S	W	D	R	K	C	K	D	G	L	Y	Q	A	L	K	E	T		1407
TTG	AGC	CAG	TCC	TGG	GAC	CGG	AAG	TGC	AAA	GAT	GGA	CTC	TAC	CAA	GCC	CTG	AAG	GAG	ACC		4743
H	P	H	L	I	M	E	L	W	E	K	G	S	K	K	G	L	L	P	L		1427
CAT	CCT	CAC	CTC	ATT	ATG	GAA	CTC	TGG	GAG	AAG	GGC	AGC	AAA	AAG	GGA	CTC	CTG	CCA	CTC		4803
S	S	*																		1430	
AGC	AGC	TGA																		4812	
AGTATCAACACCAGGCCCTTGACCCTTGAGTCCTGGCTTTGGCTGACCCCTTCTTTGGGTCTCAGTTTCTTTCTCTGCAAA																				4891	
CAAGTTGCCATCTGGTTTTGCCTTCCAGCACTAAAGTAATGGAACCTTTGATGATGCCTTTTGCTGGGCATTATGTGTCCAT																				4970	
GCCAGGGATGCCACAGGGGGCCCCAGTCCAGGTGGCCTAACAGCATCTCAGGGAATGTCCATCTGGAGCTGGCAAGACC																				5049	
CCTGCAGACCTCATAGAGCCTCATCTGGTGGCCACAGCAGCCAAGCCTAGAGCCCTCCGGATCCCATCCAGGCGCAAAG																				5128	
AGGAATAGGAGGGACATGGAACCATTTGCTCTGGCTGTGTACAGGGTGAGCCCCAAATTTGGGGTTCAGCGTGGGAG																				5207	
GCCACGTGGATTCTTTGGCTTTGTACAGGAAGATCTACAAGAGCAAGCCAACAGAGTAAAGTGGAAGGAAGTTTATTCAG																				5286	
AAAAATAAGGAGTATCACAGCTCTTTTAGAATTTGTCTAGCAGGCTTTCCAGTTTTTACCAGAAAACCCCTATAAATTA																				5365	
AAAAATTTTTTACTTAAATTTAAGAATTAATAAAAAATACAAAAAGAAAAATGAAAAATAAGGAATAAGAAGTTACCTAC																				5444	
AAAAATTTTTTACTTAAATTTAAGAATTAATAAAAAATACAAAAAGAAAAATGAAAAATAAGGAATAAGAAGTTACCTAC																				5444	

FIG. 1D

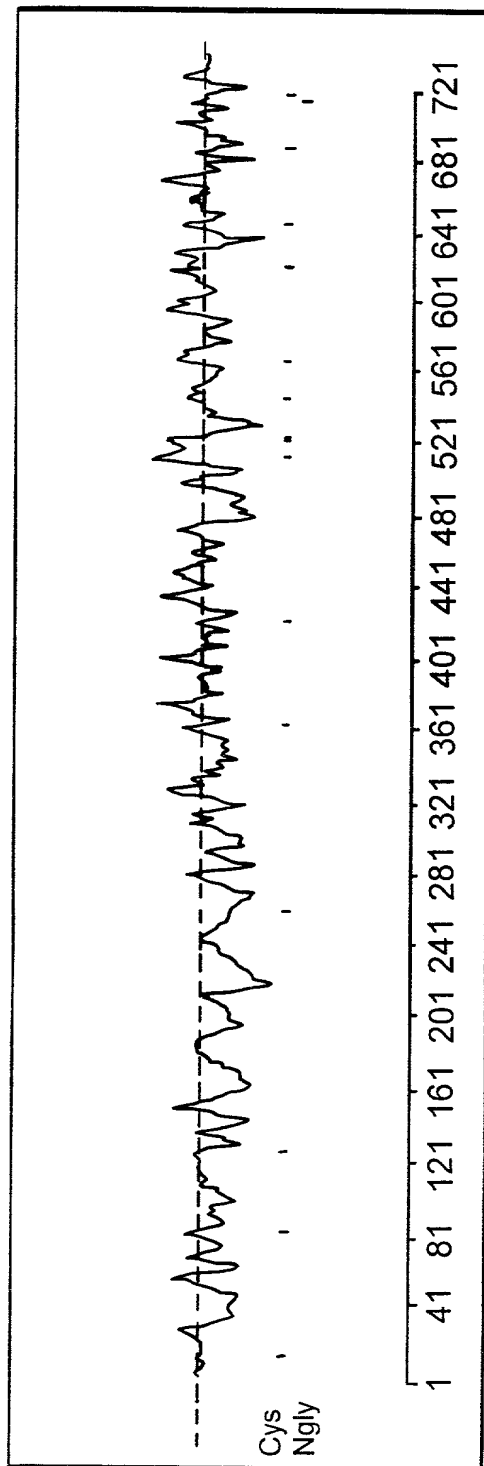


FIG. 2

TC2T 29660

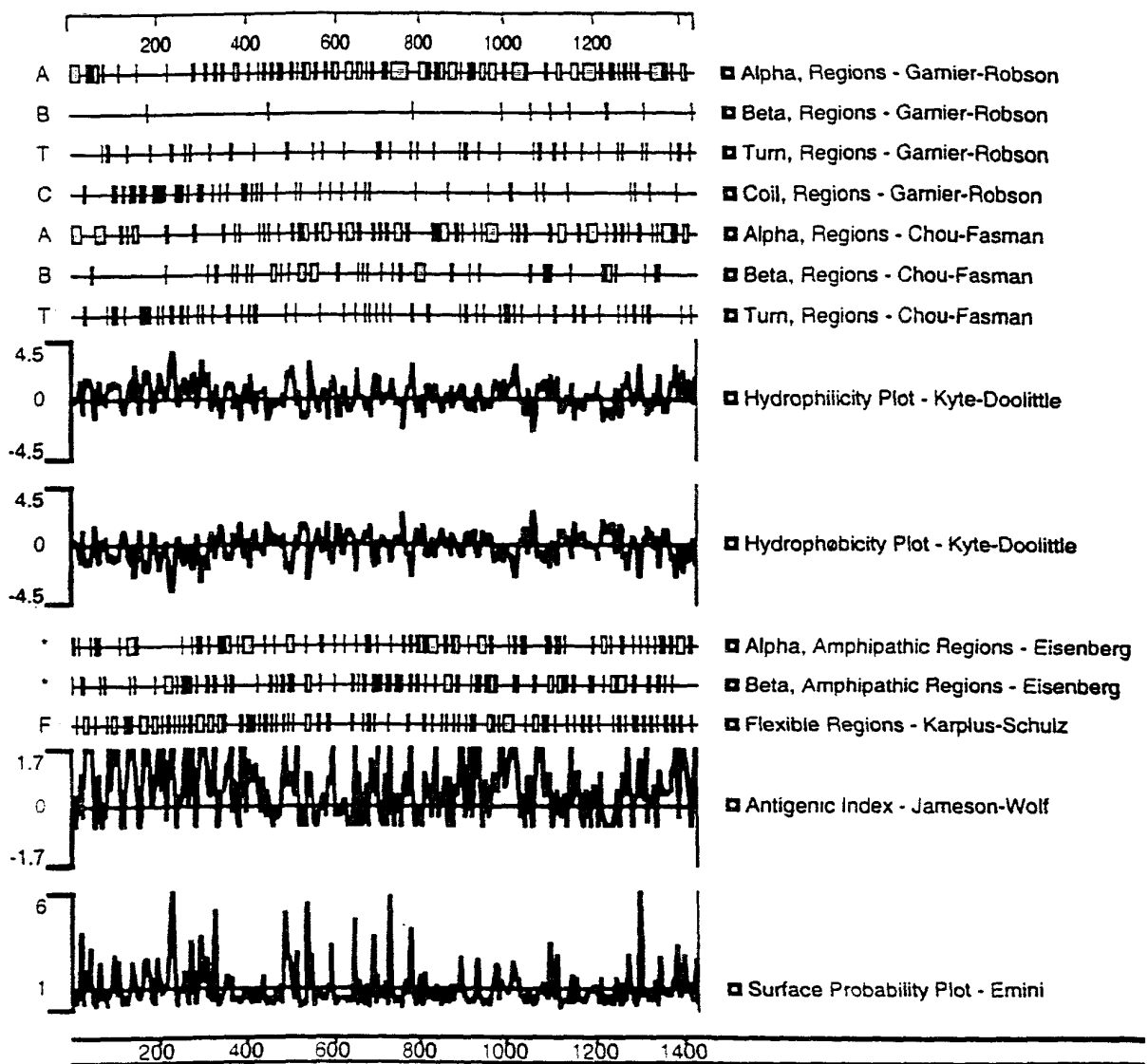


FIG. 3

CTGGTTCTCAACTTCTTTTGAATAATGTTTCATAGAGAAGGAGGGCTGTCTGAGATTGAGGGAAACAAGCTCTCAGGA 79

CTTCCGGTCGCCATGATGGCTGTGGGCGGTAAACGCGTTAGTGAAGCATCTGGGCCATCTTCAATGGTAAAAAAGAT 158

ACAGTAAAGACATAAATACCACATTTGACAAATGGAAAAAAGGAGTGTCCAGAAAAGAGTAGCAGCAGTGAGGAAGAG 237

CTGCCGAGACGGGTATACAGGGAGCTACCCTGTGTTTCTGAGACCTTTGTGACATCTCACATTTTTTCCAAGAAG 313

M M R Q R Q S H Y C S V L F L S V N Y L 20
ATG ATG AGA CAG AGG CAG AGC CAT TAT TGT TCC GTG CTG TTC CTG AGT GTC AAC TAT CTG 373

G G T F P G D I C S E E N Q I V S S Y A 40
GGG GGG ACA TTC CCA GGA GAC ATT TGC TCA GAA GAG AAT CAA ATA GTT TCC TCT TAT GCT 433

S K V C F E I E E D Y K N R Q F L G P E 60
TCT AAA GTC TGT TTT GAG ATC GAA GAA GAT TAT AAA AAT CGT CAG TTT CTG GGG CCT GAA 493

G N V D V E L I D K S T N R Y S V W F P 80
GGA AAT GTG GAT GTT GAG TTG ATT GAT AAG AGC ACA AAC AGA TAC AGC GTT TGG TTC CCC 553

T A G W Y L W S A T G L G F L V R D E V 100
ACT GCT GGC TGG TAT CTG TGG TCA GCC ACA GGC CTC GGC TTC CTG GTA AGG GAT GAG GTC 613

T V T I A F G S W S Q H L A L D L Q H H 120
ACA GTG ACG ATT GCG TTT GGT TCC TGG AGT CAG CAC CTG GCC CTG GAC CTG CAG CAC CAT 673

E Q W L V G G P L F D V T A E P E E A V 140
GAA CAG TGG CTG GTG GGC GGC CCC TTG TTT GAT GTC ACT GCA GAG CCA GAG GAG GCT GTC 733

A E I H L P H F I S L Q G E V D V S W F 160
GCC GAA ATC CAC CTC CCC CAC TTC ATC TCC CTC CAA GGT GAG GTG GAC GTC TCC TGG TTT 793

L V A H F K N E G M V L E H P A R V E P 180
CTC GTT GCC CAT TTT AAG AAT GAA GGG ATG GTC CTG GAG CAT CCA GCC CGG GTG GAG CCT 853

F Y A V L E S P S F S L M G I L L R I A 200
TTC TAT GCT GTC CTG GAA AGC CCC AGC TTC TCT CTG ATG GGC ATC CTG CTG CGG ATC GCC 913

S G T R L S I P I T S N T L I Y Y H P H 220
AGT GGG ACT CGC CTC TCC ATC CCC ATC ACT TCC AAC ACA TTG ATC TAT TAT CAC CCC CAC 973

P E D I K F H L Y L V P S D A L L T K A 240
CCC GAA GAT ATT AAG TTC CAC TTG TAC CTT GTC CCC AGC GAC GCC TTG CTA ACA AAG GCG 1033

I D D E E D R F H G V R L Q T S P P M E 260
ATA GAT GAT GAG GAA GAT CGC TTC CAT GGT GTG CGC CTG CAG ACT TCG CCC CCA ATG GAA 1093

P L N F G S S Y I V S N S A N L K V M P 280
CCC CTG AAC TTT GGT TCC AGT TAT ATT GTG TCT AAT TCT GCT AAC CTG AAA GTA ATG CCC 1153

K E L K L S Y R S P G E I Q H F S K F Y 300
AAG GAG TTG AAA TTG TCC TAC AGG AGC CCT GGA GAA ATT CAG CAC TTC TCA AAA TTC TAT 1213

A G Q M K E P I Q L E I T E K R H G T L 320
GCT GGG CAG ATG AAG GAA CCC ATT CAA CTT GAG ATT ACT GAA AAA AGA CAT GGG ACT TTG 1273

V W D T E V K P V D L Q L V A A S A P P 340
GTG TGG GAT ACT GAG GTG AAG CCA GTG GAT CTC CAG CTT GTA GCT GCA TCA GCC CCT CCT 1333

P F S G A A F V K E N H R Q L Q A R M G 360
CCT TTC TCA GGT GCA GCC TTT GTG AAG GAG AAC CAC CGG CAA CTC CAA GCC AGG ATG GGG 1393

D L K G V L D D L Q D N E V L T E N E K 380
GAC CTG AAA GGG GTG CTC GAT GAT CTC CAG GAC AAT GAG GTT CTT ACT GAG AAT GAG AAG 1453

E L V E Q E K T R Q S K N E A L L S M V 400

FIG. 4A

GAG	CTG	GTG	GAG	CAG	GAA	AAG	ACA	CGG	CAG	AGC	AAG	AAT	GAG	GCC	TTG	CTG	AGC	ATG	GTG	1513
E	K	K	G	D	L	A	L	D	V	L	F	R	S	I	S	E	R	D	P	420
GAG	AAG	AAA	GGG	GAC	CTG	GCC	CTG	GAC	GTG	CTC	TTC	AGA	AGC	ATT	AGT	GAA	AGG	GAC	CCT	1573
Y	L	V	S	Y	L	R	Q	Q	N	L	*									432
TAC	CTC	GTG	TCC	TAT	CTT	AGA	CAG	CAG	AAT	TTG	TAA									1609
AATGAGT	CGATTAGG	TAGTCTGGAAGAGAGAATCCAGCGTTCTCATTGGAAATGGATAAAACAGAAATGTGATCATTGAT																		1688
TTCA	GTGTTCAAGACAGAAGAAGACTGGGTAACATCTATCACACAGGCTTTCAGGACAGACTTGTAACCTGGCATGTAC																			1767
CTATTGACTGTATCCTCATGCATTTTCTCAAGAATGTCTGAAGAAGGTAGTAATATTCCTTTTAAATTTTTTCCAACC																				1846
ATTGCTTGATATATCACTATTTTATCCATTGACATGATTCTTGAAGACCCAGGATAAAGGACATCCGGATAGGTGTGTT																				1925
TATGAAGGATGGGGCCTGGAAAGGCAACTTTTCTGATTAATGTGAAAAATAATTCCTATGGACACTCCGTTTGAAGTA																				2004
TCACCTTCTCATAACTAAAAGCAGAAAAAGCTAACAAAAGCTTCTCAGCTGAGGACACTCAAGGCATACATGATGACAGT																				2083
CTTTTTTTTTTTGTATGTTAGGACTTTAACACTTTATCTATGGCTACTGTTATTAGAACAATGTAAATGTATTTGCTG																				2162
AAAGAGAGCACAAAAATGGGAGAAAAATGCAAAACATGAGCAGAAAAATTTTTCCCACTGGTGTGTAGCCTGCTACAAGGA																				2241
GTTGTTGGGTAAATGTTTCATGGTCAACTCCAAGGAATACTGAGATGAAATGTGGTAAATCAACTCCACAGAACCACCA																				2320
AAAAGAAAATGAGGGTAATTCAGCTTATTCGAGACAGACATTCTCGGCAATGTACCATACAAAAATAAGCCAACCTCT																				2399
GACATTTGGATTCTACCATAGACTCTGTCATTTTGTAGCCATTTCAAGCTGTCTTTTGATTAAATGTTTTCGTGGCACACA																				2478
TATTTCCATCCTTTTATGTTTAACTGTGTTTAAACAAGTTCTCTAGTAGACACCATCTGGTTGAGTCAGTTTTTTTTTATG																				2557
GTGTATTTGAACCCATTCTGATAGTCTCTTTTAACTGGAAGATTTCAATTACTTACGTTAATGTAATTATTAATATGT																				2636
TAGGATTTATCCTCAGTCAGCCAGTTTGTATGTCTTTTCTATTCTACTGTTATCACATTTGTACCACCTTAAAGTGGAA																				2715
TCTAGGCACTTTATCACCATTAGATCCTATTACCTTTTCTCATCTAGGATATAGTTATCTTCTACATAATCTTTCTGT																				2794
ATCTTAAACCCATCAATAAATTATTATATATTTTCTACTTTTAACTCACTCAGAAGATTTAAAAAACTCATGAGAAGAG																				2873
TAATCTGTTATGTTTTCCAGATATTTACCATTTCTGTTGCTCTTCTTCATTATTTTCCAAATTTCTGTTCTGCAAAT																				2952
TCCACTTCTTCTGATAGACGTTTTTTAGTCTTTTATAGATGGTTCTGATAGGTACAGATTCTCTTATTTTTTGCTTCCCT																				3031
CTGAGGACATCTTTTCTCACCTTCATTCTCAGTGATGTTTTTGTCTGTAGTATTTTAGTTGACATTGTTTTCTGTT																				3110
CAGCAGTTTCTTTTATAGCTTCCGTATTTCTGATGAGAAATCTGCAGTCATTCAAATGTTGTTTCCCTGTATGTAGTG																				3189
TGTCATTTTTCTGTCAGATTTCAAGGTATTTATCTTTAGTTTTTAGCCATTTCAATTATGTTGGGGATGAGTTTCTTGT																				3268
TTTATTCCTTTTGGAAATTTGCTCCAATTCATAAATTTGCAGTTTTATGTCTTTTACCAAACCTTAGAGGTTTTTCAGCCTA																				3347
ATTTCTAAAAATACTTTTATTAGCCTGATTTTCATCTTTATAGGAAATAGTTTAAAGTGATGACAAGITCCAATAGCTT																				3426
ATATGCCCAGAAGGCCCTTCAAATAAGAATTTTGAAAGAATACAGAAAACAAACCTTTTATATCCTTCTCATGTCTTCTA																				3505
CTGTAAATTCATATGCTTTGCTACTCTAAACCTAGTTTGAAATCAACAGTCTTGAGAATAGATGAAATTTTGATGAA																				3584
TAGTGGAATTCCTTTTAAATGGAAACCTCTTACATGTGATTTTCTTGCCATCTAGAAATAAACCATAGTATTTATGTTG					</															

FIG. 4B

TGCAAATGTGTCAGCATTTGCTTGTGTTGAGCTTTTTTTTTTTCAAGACAGGGTCTCAACTCTGTTACCCAGGCTGGAGT 4058
 GCAGTGGTGCATCTCAGCTCACTGCAACCTCTGCCTCCTGGTTCAAGCGATTATTGTGCCTCAGCCTCCTGAGTAGCT 4137
 GGGATTACAGGCATGCACCACCACAGCCCAGCTAATTTTTTGTATTTTAGTAGAGACAGAGTTTTGCTATGTTGGCCA 4216
 GGCTGGTTTGAACCTCTGGCCTCAAGTGATCCACCACCTCAGCCTCCCAAAGTGCTGGGATTACAGGCCACTACACC 4295
 TGGCACATTTGAGTATTTTTTTTTTTTTTTTTTTTGTAGATGGAGTCTCGCTCTGTCTATCTAGGCTGGAGTGCAGTGG 4374
 TGTGATCTCAGCTCACTGCAGCCTCTGTCTCCCGGGCTCAAGCGATTCTCTTGCTCAGCCTCCTGAGTAGCTAGGACT 4453
 ACAGGTGCATGCCAACACGCCCCGGCTAATTTTTTAAAAATATTTTAGTAGAGACAGGGTTTCACCATTTTGGCCAG 4532
 GATGGTCTCGATCTCCTGACCTCATGATCCACCCGCCTCGGCCTTCCAAAGTGCTGGGATTACAGGCATGAGCCACCGT 4611
 GCCTGGCCTCATTTGAGTATTTTATAATGTCTCTTTTAAAGTCTTGTGAGATAATTCCACTGTACATGTTATTCAGT 4690
 GTTTGGTGTCCACTGAGTTGTCAATTTGCCAGACAAGTGGAGATTTTGCAGCTCATCCTTGTATTCTCAGTAGTTCGA 4769
 TATGTACCCTCGACATGTGAATGTTATCTTATGAGACTCTGTTTTATTGTATCCAACAGAAGATGTTTATTATTATT 4848
 TGGCTTTCTGTGAACTGAGGTCTTAATATCAGCTCATTTTAAAGTCTTGCAGTGGTATTCCGGATCTATCCTGTGTGT 4927
 GCCTATGAGATTGGGTGCAGTGTATCCTGTTAGCTCCATTCTCAGGGCGTTTGAATGTGAATTAGGACCAGCGCAATGA 5006
 ATGCTCAAGTTGGGGTTGGGCGTTAGAATTATAAAAGTCTTTATATGCTCAG 5059

FIG. 4C

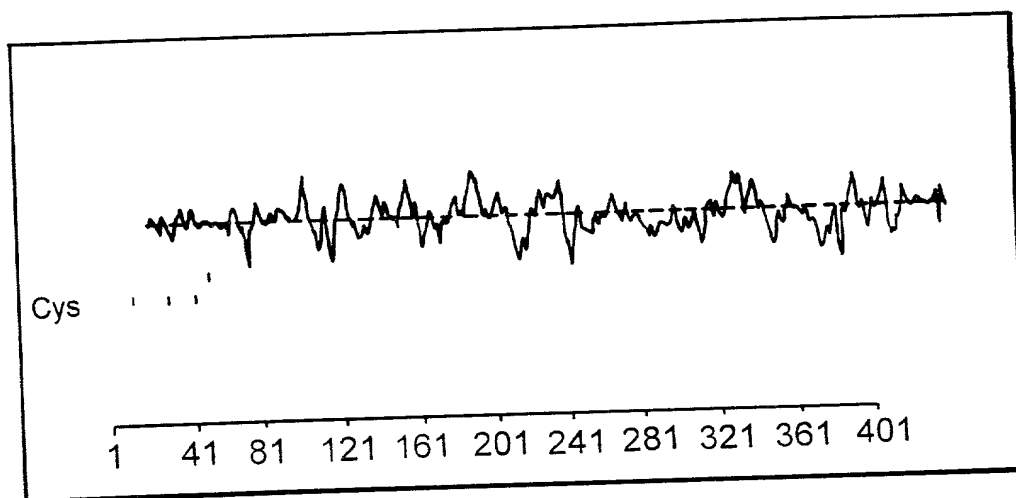


FIG. 5

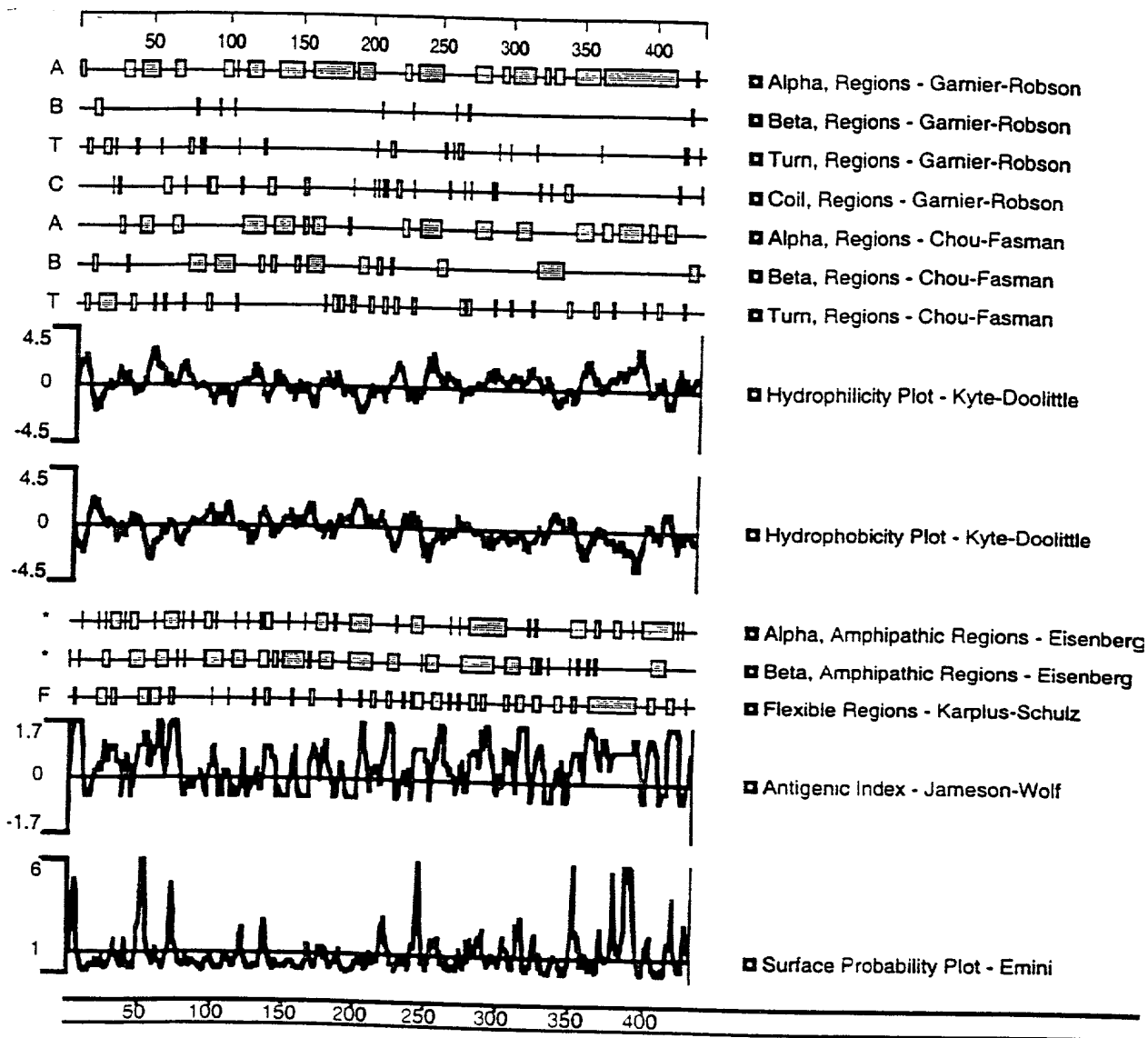


FIG. 6

1 CGCGTCCGGCTGCAGCGGGGTGAGCGGGCGGCAGCGGCCGGGGATCCTCGAGCCATGGGGC
CGCGAGGCCGACGTGCCCCCACTGCGCGCCGCTGCGCGGCCCTAGGACCTCGGTACCCCG
1► M G

61 GCGCGCGCGACGCCATCCTGGATGCGCTGGAGAACCTGACCGCCGAGGAGCTCAAGAAGT
CGCGCGCGCTGCGGTAGGACCTACGCGACCTCTTTGGACTGGCGGCTCCTCGAGTTCTTCA
3► R A R D A I L D A L E N L T A E E L K K

121 TCAAGCTGAAGCTGCTGTGCGGTGCGCGTGCAGGGCTACGGGCGCATCCCGCGGGGCG
AGTTTCGACTTCGACGACAGCCACGGCGACGCGCTCCCGATGCCCGCGTAGGGCGCCCGCG
23► F K L K L L S V P L R E G Y G R I P R G

181 CGCTGCTGTCCATGGACGCCCTTGGACCTCAACGACAAGCTGGTCAGCTTCTACCTGGAGA
GCGACGACAGGTACCTGCGGAACCTGGAGTGGCTGTTTCGACCAGTCGAAGATGGACCTCT
43► A L L S M D A L D L T D K L V S F Y L E

241 CCTACGGCGCCGAGCTCACCGCTAACGTGCTGCGCGACATGGGCCTGCAGGAGATGGCCG
GGATGCCCGCGGCTCGAGTGGCGATTGCACGACGCGCTGTACCCGGACGTCTCTACCCGG
63► T Y G A E L T A N V L R D M G L Q E M A

301 GGCAGCTGCAGGCGGCCACGCACCAGGGCTCTGGAGCCGCGCCAGCTGGGATCCAGGCC
CCGTGCGACGTCCGCCGGTGGCTGGTCCCGAGACCTCGGCGCGGTGACCCCTAGGTCCGGG
83► G Q L Q A A T H Q G S G A A P A G I Q A

361 CTCCTCAGTCGGCAGCCAAGCCAGGCCTGCACTTTATAGACCAGCACCGGGCTGCGCTTA
GAGGAGTCAGCCGTGCGTTTCGGTCCGGACGTGAAATATCTGGTTCGTGGCCCGACGCGAAT
103► P P Q S A A K P G L H F I D Q H R A A L

421 TCGCGAGGGTCACAAACGTTGAGTGGCTGCTGGATGCTCTGTACGGGAAGGTCCTGAACG
AGCGCTCCAGTGTGTTGCAACTCACCGACGACCTACGAGACATGCCCTTCCAGGACTGCC
123► I A R V T N V E W L L D A L Y G K V L T

481 ATGAGCAGTACCAGGCAGTGCAGGGCCGAGCCCCACCAACCAAGCAAGATGCGGAAGCTCT
TACTCGTCATGGTCCGTACGCCCCGGCTCGGGTGGTTGGGTTCGTTCTACGCCTTCGAGA
143► D E Q Y Q A V R A E P T N P S K M R K L

541 TCAGTTTCACACCAGCCTGGAACCTGGACCTGCAAGGACTTGCTCCTCCAGGCCCTAAGGG
AGTCAAAGTGTGGTCCGACCTTGACCTGGACGTTCTGAAACGAGGAGGTCCGGGATTCCC
163► F S F T P A W N W T C K D L L L Q A L R

601 AGTCCCAGTCTTACCTGGTGGAGGACCTGGAGCGGAGCTGAGGCTCCTTCCCAGCAACAC
TCAGGGTCAGGATGGACACCTCCTGGACCTCGCCTCGACTCCGAGGAAGGGTCGTTGTG
183► E S Q S Y L V E D L E R S

661 TCCGGTCAGCCCTGGCAATCCACCAAATCATCCTGAATCTGATCTTTTTTATACACAAT
AGGCCAGTCGGGGACCGTTAGGGTGGTTTTAGTAGGACTTAGACTAGAAAAATATGTGTTA

721 ATACGAAAAGCCAGCTTGAA
TATGCTTTTCGGTCGAACCTT

FIG. 7